

ABSTRACT

A composition is provided comprising a novel cationic lipid compound having hydrophobic tails and two quaternary ammonium headgroups bridged by a linker.

- 5 The composition is useful as a cytofectin for facilitating delivery and transfection of biologically active agents, particularly anionic bioactive agents such as DNA, into cells. The composition is useful also as an adjuvant for enhancing the humoral immune response of a vertebrate to an immunogen, especially an immunogen encoded by a polynucleotide-based vaccine. In certain preferred embodiments, the cationic
- 10 lipid compound is a dimer containing quaternary ammonium headgroups bridged by a linker having DNA and/or cell receptor binding affinity, such as a polypeptide or polyamine. Also disclosed is an immunogenic composition comprising an immunogen and the composition of the present invention.